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The Merge

In air combat, “the merge” occurs when opposing aircraft meet and pass each other. Then they usually “mix it up.” In a similar spirit, Air and Space Power Journal’s “Merge” articles present contending ideas. Readers can draw their own conclusions or join the intellectual battlespace. Please send comments to aspj@maxwell.af.mil.

A Debate

Will the Larger Air Force Ever Accept the Space Cadre?

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FULLY INTEGRATING THE space cadre into the US Air Force, perhaps even to the point that one day an Air and Space Combat Command exists within the US Air and Space Force, will require that proponents of space-based combat power overcome a wide range of obstacles, none of which are entirely new. The space cadre can solve these problems more easily if it learns the hard-won lessons of its many predecessors. Space-based combat power and its associated space cadre are just recent innovations struggling for acceptance by and integration into the existing warrior community.

Doctrine

Point

Significant doctrinal issues impede the integration of the space cadre into the Air Force. Space forces, the capabilities they now enable, and those they will one day generate organically are “inherently strategic.” Absent a peer or near peer, no adversaries challenge US strategic prowess. America’s foes are driving future engagements to the tactical level whenever possible and creating a need for more US expeditionary forces. In this tactically oriented warfare environment, how can space forces operating at the strategic level of warfare from behind computer terminals far from the battlefield ever hope to integrate with their expeditionary brethren?

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Counterpoint

Nothing is inherently strategic. Indeed, until the early air forces demonstrated their ability to contribute beyond the tactical level of warfare to the strategic level, they remained bound to the commanders of supported ground forces. Not until very long-range (read “strategic”) bombing moved air forces beyond what the Army Air Corps could justify as a ground-support element, not until Airmen contributed unselfishly to success in all the theaters of World War II, and not until the United States developed this other innovation—the atomic bomb—did the Air Force emerge as a separate service, “unintegrating” itself from the Army.

Since 1947 the operations of the services have evolved, each in recognition of new and changing operating environments and their unique contributions to national security. A major portion of the Air Force has retained this “strategic” (read “very long-range”) focus. But part of the Air Force has always tried to return to those tactical roots. It not only focuses on force-enabling missions such as transport, but also works diligently to remain directly relevant to tactical war-fighting forces; C-130 gunships and A-10 close-air-support missions represent just two examples. The space forces and space cadre are already moving down this road to tactical integration, having demonstrated the ability to wed capabilities derived from global systems such as precision positioning to weapons such as Joint Direct Attack Munitions for the purpose of taking out tactical-level targets. Space-based capabilities with strategic-level aspirations or pedigrees support ground forces at the company level. As the space cadre develops new combat-power capabilities organic to space forces, this will undoubtedly continue, thus bridging the doctrinal chasm between strategic and tactical operations.

Organization

Point

Three points. First, space is an organizational train wreck, inside and outside both the Air Force and the Department of Defense. The space cadre isn’t organized to develop doctrine for space forces engaged in today’s space missions—communications, navigation and timing, and surveillance—let alone tomorrow’s. Launch, intercontinental ballistic missile (ICBM) forces, information operations (IO), and buckets like “offensive counterspace” and “force application,” Fourteenth Air Force, Twentieth Air Force, and the global-strike “war-fighting headquarters” must be a confusing jumble to organizations like US Strategic Command. Second, the flying Air Force has become the check writer for the space part of the Air Force, and one would have to be a true spinmeister to convince joint forces or the Air Force that the future imagery architecture, or the space-based infrared system, or “transformational” communications, or any other space-system cost overrun (pick any system; they all have overruns) has increased core capabilities.

Third, many senior space officers in the Air Force may be passive-aggressive closet separatists who quietly and diligently work to get recognition as a space force, if not a “Space Force.” The organizational train wrecks continue.

Counterpoint

Don’t blame the victims of the train wreck for causing the wreck. Rather, focus on the fact that space-based capabilities support and inform national-level decision making, joint-force combat capabilities, weapon-system effectiveness, and US military prowess around the clock, regardless of whatever organizational idiosyncrasies may exist. The notion that senior space officers are separatists is silly and wrong.

Training

Point

Okay, but don’t let facts get in the way of the power of perceptions. Perceptions are real too. If one asserts that any structure that works is a good structure, he or she must consider the challenge the space cadre has with training. The unique training requirements of new and different forces tend to work against the integration of their practitioners. In the history of arms, novel equipment that enabled new forms of engagement was often kept separate from the bulk of the forces, which decided the outcome of battles by maneuver for attrition. One uses the term *bulk* because in attrition warfare, numbers dominate the calculus of the operational art. Cavalry required different skills than infantry—horsemanship and swordsmanship—so the horse-mounted cavalry operated in conjunction with, but distinctly different than, the bulk of the infantry. Musketeers were dismounted, and artillery was kept separate even though it quickly proved integral to maneuver warfare. Artillerists required knowledge of chemistry and geometry, so the Army employed them with, but organized and trained them apart from, cavalry and infantry. Navies, having no choice, integrated them into warships. Air forces, once their utility exceeded signals and the Signal Corps, became the Air Corps—part of, but apart from, the bulk of the Army.

Counterpoint

Of course those elements started out as separate arms of what became their services. Until the service could wring out what these new forms of engagement meant and what new requirements they would dictate to the service, it made sense to train them separately until the full effect emerged and one determined how a form could, would, or should interact with existing forms of engagement. But eventually the novel equipment and its associated operating forces became unalterably linked to the originating force. Cavalry and infantry, although wielding different forms of fires and maneuvers as well as requiring different skill sets and training, are inseparable elements of to-

day's ground force. And the Navy, in full recognition of the important role it plays in the fire-and-maneuver ability of ground forces (despite the fact there is nothing particularly naval about artillery), would never think of handing over its artillery to another service arm. So too will it be with the space cadre. In the beginning, it makes sense to train its members separately, but even now we are wringing out what this new space-based form of engagement means. Full integration is just the next—inevitable—step in the evolution of this new form of warfare.

Materiel

Point

New equipment that is foreign, even alien, to established forces will keep those who use it separate from the mainstream. When nuclear weapons arrived, only the Air Corps' 509th Bomb Group had them. Ballistic missiles and space followed—and then IO. Neither ballistic missiles, nor space, nor IO are missions that “naturally” belong to air forces built around air-breathing, winged platforms, no matter what anyone asserts about the Air Force's rightful turf. So unnatural is this new equipment to the offspring of the Air Corps that it likely has precious little chance of being integrated. Anything in which keyboards play a common role and keystroking represents combat or combat-support activity may pose intractable problems in organizing, training, and equipping for the Department of the Air Force.

Counterpoint

There was a time when missiles and space-based war-fighting capabilities were not obvious Air Force missions. Much to the chagrin of President Eisenhower, the late fifties saw huge Army, Navy, and Air Force programs develop intermediate-range missiles and ICBMs. But one could argue that the other services piled on not because missiles are not inherently Air Force missions, but because the brand-new US Air Force was not as established as its much older sister services and therefore could not defend its own turf, since that turf had yet to become fully defined. With the benefit of hindsight, ballistic missiles, space, and information warfare are not only “natural fits” for the Air Force but also natural extensions of previous missions; indeed, today they are essential contributions that the Air Force is best qualified to make to national security and joint war fighting. As foreign or even alien as space equipment may seem to air forces, it is all the more so to sea and, especially, ground forces. Practitioners of space-based warfare have a much better chance of joining the mainstream of the Air Force than similar elements within the Army or Navy have of joining the mainstream of those services.

Leadership

Point

The thread that runs through all the counterarguments is, “It could be worse.” Rather than responding to this point by using an it-could-be-worse defense, one should accept the fact that as long as one chief of staff of the Air Force after another is a pilot (most probably a fighter pilot who grew up flying air-breathing, winged planes in the white-silk-scarf Air Force), the space cadre will remain a second-class citizen of the service and thus never become fully integrated. Full integration of a community will not happen if it does not have first-rate officers, and what bright, young, and ambitious Air Force officers are going to limit themselves by choosing a career field from which no chief of staff has ever been chosen?

Counterpoint

In the long run, the pedigree of the chief of staff will not be the deciding factor in the integration of the space cadre; rather, it will be the ability of the space cadre to deliver credible and reliable combat power to the president and combatant commanders. This will usher in the possibility of a member of the space cadre eventually becoming the Air Force chief of staff. Consider the Navy and the Office of the Chief of Naval Operations. Once upon a time, naval forces had only surface-warfare officers—captains of battleships, cruisers, and destroyers. But now they have submariners and naval aviators in their ranks, some of whom have gone on to become the chief of naval operations (e.g., Adm Frank Kelso, a submariner, and Adm Jay Johnson, an aviator). When submarines and aircraft carriers proved their mettle, no surface-warfare officer at the top would, or could, stop the full and complete integration of these new warfare communities into the Navy fold. But a difference in the manner of their integration may provide lessons for the space cadre. Specifically, submariners sprang on the scene almost as a full-fledged and equally capable combat arm of their navies, while aviators required a decades-long period of development to attain equal status, eventually overtaking the surface-warfare community as the prime instrument of tactical naval-power projection.

During the age of the dreadnought, the battleship ruled the seas. Some very early experiments occurred with submarine warfare—such as the Confederate States’ CSS *Pioneer*, *Diver*, and *Hunley* in the 1860s—and 40 years later, torpedoes allowed subs to sink thin-skinned merchants and then the thicker-skinned battleships. Were submarines a weaker sister—relegated to a supporting role for the dominant force of the day—or did they enter fights by providing a full-fledged combat capability? They were an equal partner from birth, starting out organic, fully capable, and autonomous.

Now consider naval aviators. Like their land-based counterparts, they started out doing tactical support for established forces: early aviators promised battleship admirals that they would be better spotters for naval gunnery

than any other spotters the fleet had. Progressing slowly through the development of better launch and arresting gear while developing tactics that allowed higher launch rates and thus bigger volumes of ordnance on target, they elevated themselves from weaker newcomers to full partners in naval power. The contributions of naval airpower to the victories in the Pacific in World War II almost made the battleship Navy look impotent. Eventually (well into the 1980s) the carrier replaced the battleship as the centerpiece of naval power, thus unintegrating the battleship admirals. When young Americans go to Annapolis, they can request their warfare specialty. The Navy has no problem filling its aviator ranks today. On the other hand, it can retain qualified surface-warfare officers only by enticing them with bonus pay.

Today's space cadre is probably following the naval-aviator model rather than the submariner model. Perhaps in the not-too-distant future, Air Force Academy graduates will clamor to become space warriors, relegating combat pilots to the same fate as the Navy's battleship admirals.

Ethos

Point

Fans of *Star Wars* and *The Last Starfighter* might think otherwise, but fans of *Star Trek* and *Aliens* saw naval forces (sailors and marines), not air forces, as stewards of the fluid medium of space. It could be that the astrophysicists and keystrokers will just never fit into the present or future Air Force.

Worse, there exists a psychology of comradeship among those who give and take direct fires together. The Air Force has drawn and will draw its leaders from those who go "downtown"—Berlin, Tokyo, Hanoi, Baghdad, and whatever is next—giving and taking direct fires. Marines who fought at Iwo Jima could meet each other for the very first time a half century later and feel an immediate, unbreakable bond. Members of the 506th Parachute Infantry Regiment of World War II are a band of brothers even today. One finds few more powerful examples of integration. How can members of the space cadre ever hope to achieve this level of integration as long as they never don a pair of muddy boots, scramble to their battle stations, or look an enemy in the eye at the kill-or-be-killed moment? We shouldn't fault anyone who makes it home in time to pick up the kids from soccer practice, but we shouldn't expect that ethos and the warrior ethos to be the same.

Counterpoint

This is a concern I think we share, but we should share it for the larger Air Force and not for the space cadre, which includes Airmen—nothing more or less. They (we) are part of a great enterprise engaged in a great endeavor. That technology has obviated the need for many of the direct fires of the past is a success story, not a tragedy. All of us in the Air Force—space, air, and cyberspace—need to be proud of this development, not demoral-

ized by it. Others may make a virtue of the necessity of their circumstances, but committing ourselves to using technological wizardry to reduce risk is absolutely a virtue. The ethos we share is the comradeship of being in one Air Force—the only such service on the planet recognized as number one, with even number two far, far behind.

Conclusion

Point

So what have we concluded here?

Counterpoint

I've concluded that those who express certain points of view may be whining dinosaurs. The Air Force is creating its future as we sit here, having already accepted the space cadre. Pioneers will always have their critics, and innovators will always have naysayers. I'm confident we'll get this right, sooner rather than later.

Point

Cheerleading or analysis?

Counterpoint

Did you just hear a fossil, or am I imagining things? □

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